

In the claims:

1. (previously presented) A method for operating a high-frequency measurement device, in which an analog measurement signal (22) detected by a receiver unit (23) of the high-frequency measurement device is supplied to at least one analog/digital converter (28) of an evaluation unit for the measurement signal (22),

wherein an interference signal is measured and an interference signal measurement value is determined,

wherein the scan rate of the at least one analog/digital converter (28) is varied as a function of the determined interference signal measurement value correlated with the interference signals so as to reduce an influence of external interference sources on the high-frequency measurement device.

2. (original) The method as recited in claim 1, wherein the scan rate of the at least one analog/digital converter (28) is changed if the interference signal measurement value correlated with the interference signals exceeds a threshold value.

3. (previously presented) The method as recited in claim 1 or 2, wherein the interference signal measurement value correlated with the

interference signals is measured with the aid of the receiver unit (23) of the measurement device.

4. (original) The method as recited in claim 3, wherein the measurement of the interference signals with the changed scan rate of the at least one analog/digital converter (28) is repeated if the measurement value correlated with the interference signals exceeds a predeterminable threshold value.

5. (original) The method as recited in claim 3, wherein the measurement of the interference signals with the changed scan rate of the least one analog/digital converter (28) is repeated until a scan rate with a minimum interference influence is achieved.

6. (previously presented) The method as recited in claim 1, wherein the scan rate of the at least one analog/digital converter (28) is varied, starting from a high scan rate and moving toward lower scan rates.

7. (previously presented) The method as recited in claim 1, wherein during a measurement of the interference signals, the entire spectrum of interference signal frequencies that the bandwidth of the receiver unit (23) is

capable of detecting is used in order to determine the measurement value correlated with the interference signals.

8. (previously presented) The method as recited in claim 1, wherein in a measurement of the interference signals, selective interference signal frequencies within the bandwidth of the receiver unit (23) are used in order to determine the measurement value correlated with the interference signals.

9. (previously presented) The method as recited in claim 7, wherein the frequency spectrum detected during a measurement of the interference signals is evaluated and the resulting measurement value correlated to the interference signals is compared to a predeterminable threshold value.

10. (previously presented) The method as recited in claim 1, wherein before a measurement for locating objects (20), at least one measurement is carried out to identify interference signals.

11. (previously presented) The method as recited in claim 1, wherein a variably adjustable component (34) of the receiver unit (23), which component influences the signal amplitude of the measurement signal (30), is set in accordance with the interference signal measurement value correlated with the

interference signals in order to prevent a clipping of the measurement signal to be evaluated from occurring in the receiver branch.

12. (currently amended) A high-frequency measurement device, having a transmitter unit (19) for generating and transmitting a measurement signal (16), having a receiver unit (23) for detecting a returning measurement signal (22), and having a control and evaluation unit that includes at least one analog/digital converter (28) for a measurement signal (22) detected by the receiver unit (23), which measurement signal is scanned for further signal processing,

wherein an interference signal is measured and an interference signal measurement value is determined,

wherein the scan rate of the at least one analog/digital converter (28) is variably adjustable as a function of the determined interference ~~space~~signal measurement value ~~corrected~~correlated with the interference signals so as to reduce an influence of external interference sources on the high-frequency measurement device.

13. (original) The high-frequency measurement device as recited in claim 12, wherein the measurement signal (16) generated by the transmitter unit (19) has more than one measurement frequency.

14. (original) The high-frequency measurement device as recited in claim 12, wherein at least one measurement frequency of the measurement signal (16) generated by the transmitter unit (19) lies in a range from 100 MHz to 10,000 MHz, in particular in a range from 1,000 MHz to 5,000 MHz, and preferably in a range from 1,500 MHz to 3,500 MHz.

15. (original) The high-frequency measurement device as recited in claim 12, wherein a microcontroller (36) is provided, which controls the variation of the scan rate of the least one analog/digital converter (28).